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Herbaceous Wind Barriers

Conservation Practice Job Sheet

422A

Natural Resources Conservation Service (NRCS)

April 1997

Landowner _____



Definition

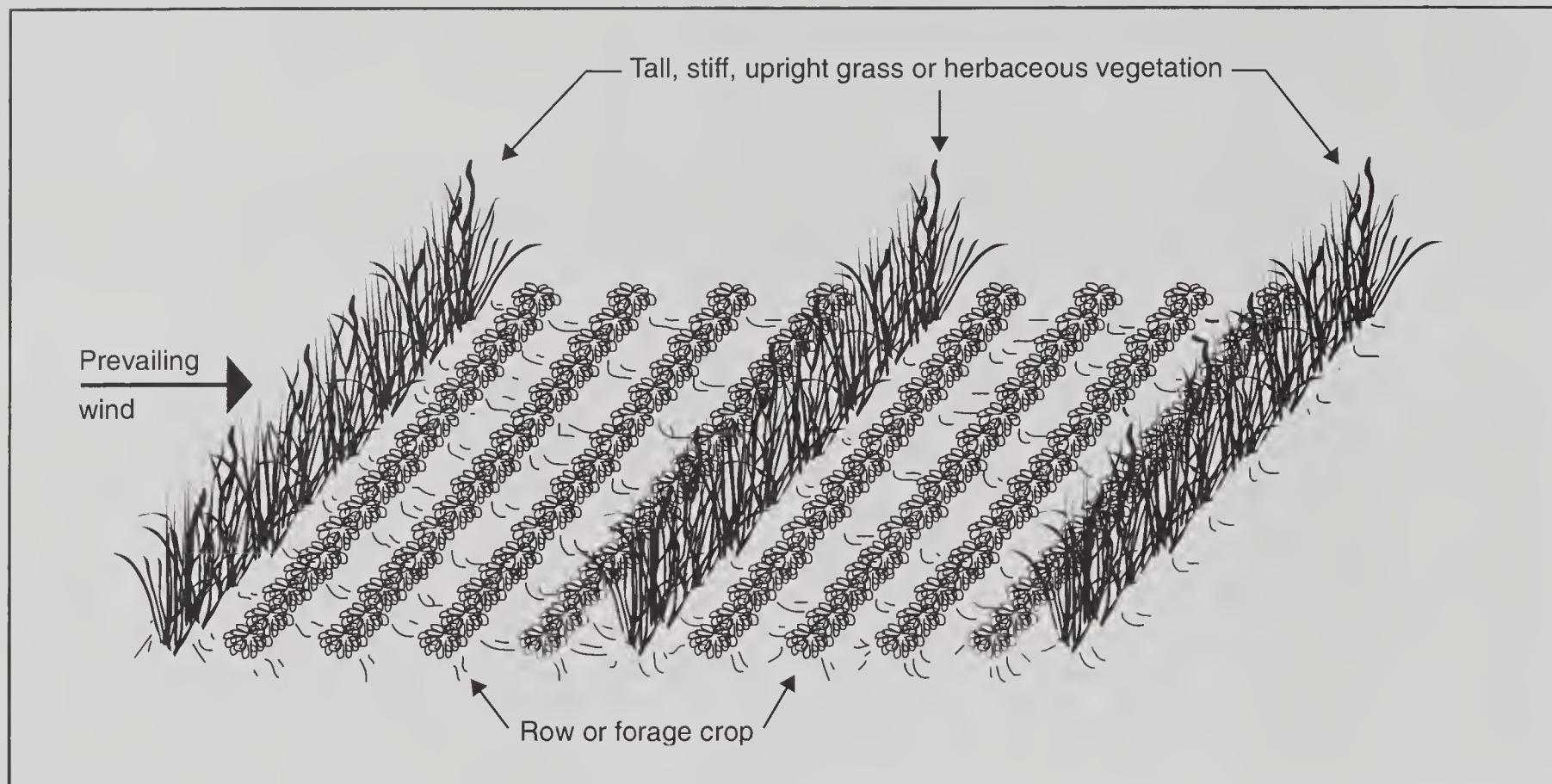
Herbaceous wind barriers are tall grass and other non-woody plants established in 1- to 2-row narrow strips spaced across the field perpendicular to the normal wind direction.

Purpose

Herbaceous wind barriers reduce wind velocity across the field and intercept wind-borne soil particles.

Secondary benefits

- Protect crops from damage by the wind or wind-blown soil particles.
- Provide food and cover for wildlife.
- Trap and distribute snow across the field.
- Reduce pesticide drift and the movement of other contaminants.



Herbaceous wind barriers reduce wind velocity, which prevents wind erosion, protects crop plants, and influences the deposition of sediment, snow, and other wind-borne material. For optimum effect on wind, the barriers should not be farther apart than 10 to 12 times the height of the barrier vegetation.

Where used

- On cropland and other land where wind-associated problems occur.
- Where snow management is desirable for improved moisture conservation.
- Where wildlife food, cover, and corridors are part of the landowner's desired objectives.
- On irrigated land using center pivot irrigation where taller, woody species would interfere with the pivot system.

Conservation management system

Herbaceous wind barriers are normally established as part of a conservation management system to address the soil, water, air, plant, and animal resources and the owner's objectives. When agronomic and horticultural crops are grown, it is important to plan the conservation crop rotation, nutrient and pest management, crop residue management, and other cropland practices.

Wildlife

Connecting herbaceous wind barriers with existing perennial vegetation, such as woodlots and woody draws (*tree/shrub establishment*) or hedgerows (*windbreak/shelterbelt establishment*), benefits wildlife and aesthetics. Adapted native species that provide wildlife food and cover should be planted.

Specifications

Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See practice standard Herbaceous Wind Barrier (442A).

Herbaceous Wind Barriers – Specifications Sheet

Landowner _____ Field number _____

Purpose (check all that apply)	
<input type="checkbox"/> Reduce wind erosion	<input type="checkbox"/> Provide wildlife habitat
<input type="checkbox"/> Reduce wind-borne sediment	<input type="checkbox"/> Provide protection to growing crops
<input type="checkbox"/> Distribute snow across the field	<input type="checkbox"/> Other (specify)

Location and Layout	Barrier strip 1	Barrier strip 2	Barrier strip 3	Barrier strip 4
Barrier width (ft)				
Barrier height (in)				
Barrier length (ft)				
Acres in barrier area				

Plant Materials Information					
Species/cultivar by barrier number	Seeding rate (lb/acre)	Seeding date	Recommend lime (tons/acre)	Recommend fertilizer N-P ₂ O ₅ -K ₂ O (lb/acre)	
Strip #1					
1					
2					
3					
4					
Strip #2					
1					
2					
3					
4					
Strip #3					
1					
2					
3					
4					
Strip #4					
1					
2					
3					
4					

Site Preparation
Prepare firm seedbed. Apply lime and fertilizer according to recommendations.
Planting Method(s)
Drill grass and/or legume seed _____ inches deep uniformly down the row. Establish stand of vegetation according to recommended seeding rate. If necessary, mulch newly seeded area with _____ tons per acre of mulch material. May seed small grain as a companion crop at the rate of _____ pounds per acre, but clip or harvest before it heads out.
Operation and Maintenance
Control weeds. Reestablish barriers as needed to ensure adequate growth before critical wind period. Remove sediment accumulation. Reestablish gaps in barrier row. See standard maintenance requirements.

Herbaceous Wind Barriers – Job Sketch

If needed, an aerial view or a side view of the herbaceous wind barrier field layout can be shown below. Other relevant information, such as complementary practices and adjacent field or tract conditions including structures and crop types, and additional specifications may be included.

Scale 1"= _____ ft. (NA indicates sketch not to scale: grid size=1/2" by 1/2")



Additional Specifications and Notes:

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